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ABSTRACT

This study is concerned with the evolving pattern of funding used in Iowa for the operation of area schools, which include community colleges and postsecondary technical schools. The following are discussed as they relate to the organization of Iowa's area schools: development of the merged area schools, role of the State Board of Public Instruction, identifying 15 merged area schools, enrollment growth, financial accounting system, and expenditures and revenue sources. The four funding formulas for 1966-75 are given. A recommended funding model for the 1975-77 biennium is discussed. The Florida funding model is reviewed for its usefulness in devising a system for Iowa. (Author/KM)

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A FUNDING MODEL

FOR

IOWA'S MERGED AREA SCHOOLS

by

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FOREWORD

Finance of community/junior colleges has become, and will continue to be, one of the most crucial areas for study and improvement in the decade of the 70s. State agencies responsible for these institutions must constantly examine all facets of finance ranging from potential sources to means of determining the most efficient utilization of funds when existent. The method of determining the allocation of funds to be appropriated to the community/junior colleges from among other public post-secondary institutions within each state is one of the major problems to be addressed.

This study is concerned with the evolving pattern of funding used in Iowa for the operation of their area schools, which include community colleges and post-secondary technical schools. Since the area schools have evolved out of the school district structure of that state, it is understandable that the historical pattern and method of funding was closely associated with school district finance. As the area schools became more independent, efforts to relate the method of funding to the new structure necessarily followed. Such a situation has been experienced in many states which had community/junior colleges prior to 1960.

An additional phenomenon impinging upon Iowa and other states has been the change in the philosophy and concept of funding of all state governmental services, including educational institutions. As state governments have moved closer to the concept of Program Budgeting Systems, each program area has moved toward a more systematic approach of determining output requirements as the basis of planning input needs. This study by Mr. Robert B. Yeager reflects elements of the contemporary program planning concepts as well as a background of the historical basis used in Iowa for funding the area schools. A number of states throughout the nation may find commonalities in their situation and the situation confronting Iowa. It is hoped this monograph will be of assistance to them.

The FSU/UF Center for State and Regional Leadership is financed in part by a grant from the W. K. Kellogg Foundation and has as its primary objective the improvement of state agencies directly or indirectly responsible for community/junior colleges. Mr. Yeager was a recipient of one of the in-service grants made possible by the W. K. Kellogg Foundation to incumbent officials or their designees who wish to study an issue or problem confronting their state and which has potential applicability for other states throughout the nation. Florida State University and the University of Florida have, through the Center, provided secretariat services to the National

Council of State Directors of Community/Junior Colleges and conducted action research on issues identified by state directors which relate to state-level coordination and development of community/junior colleges.

We are indebted to Mr. Horace M. Holderfield and Mr. Frank D. Brown, Kellogg Fellows, Florida State University, for assisting Mr. Yeager in this study. I wish to express thanks also to Dr. James L. Wattenbarger, my colleague at the University of Florida, who assisted by meeting with Mr. Yeager during his term of residency and also provided editorial suggestions on the manuscript.

Louis W. Bender
Professor of Higher Education

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INTRODUCTION

This document specifically relates to the problem of requesting, justifying and receiving state general aid as requested for the area schools of Iowa. Since the first session of the 65th General Assembly has just adjourned, work must begin to prepare appropriation requests for the first session of the 66th General Assembly. Therefore, the problems at this time are twofold. These are:

(1) How can the State Department of Public Instruction more effectively communicate the appropriation request for state general aid for area schools to the legislature.

(2) How can the State Department of Public Instruction evaluate the current funding model and modify so that it will more effectively meet the needs of the area schools and provide better justification to the legislature for adequate support.

This paper relates to the history of the area schools, previous funding formulas used, and a recommended funding model for the 75-77 biennium. A serious review has been given the Florida funding model which if modified could meet some needs of the Iowa system.

I appreciate the opportunity made possible by the W. K. Kellogg Foundation to visit the Florida State University, the Florida Division of Community Colleges, and the University of Florida where I conducted most of the research for this study. Dr. Lee G. Henderson and Mr. Thomas Baker of the Florida Division of Community Colleges were most helpful in providing background information and appropriate documents related to the Florida model. Dr. Lou Bender and Dr. Jim Wattenbarger both provided invaluable assistance in analyzing the existing funding formula used by Iowa and making suggestions for possible new funding model.

Robert B. Yeager

CHAPTER I

ORGANIZATION OF IOWA'S AREA SCHOOLS

Iowa's area schools constitute a statewide system of public two-year post-secondary institutions. Each area school serves a multi-county merged area which varies in size from approximately four to eleven counties. All area schools offer a comprehensive educational program available to all Iowans; there are no residence restrictions which would prohibit Iowans from attending any of the area schools.

Area schools were first developed in 1966. An act permitting the organization of merged area schools was approved by the legislature the previous year. This act allowed the area schools to be organized as either area community colleges or area vocational schools. During the 1970-71 school year, eleven of the area schools operated as area community colleges and four as area vocational schools.

All area schools are operated by locally elected boards of directors. These boards vary from five to nine members in size. The chief administrator employed by the area schools board of directors is identified as a superintendent. Area schools may to some extent be considered the successor of the public junior colleges which previously operated in Iowa. The first of these Iowa public junior colleges, Mason City Junior College, was organized in 1918 as a division of the local secondary school district. Additional public junior colleges similarly organized were subsequently developed and a total of thirty-five different public junior colleges were organized prior to the development of area schools. A number of these public junior colleges discontinued operation--a few to reopen at a later date--until in 1965, the year prior to the development of area schools, there were sixteen public junior colleges operating in Iowa. With the development of the area schools, these public junior colleges gradually merged with area schools until one public junior college remained operating during the 1969-70 school year. This public junior college, Emmetsburg Community College, merged with Iowa Lakes Community College at the beginning of the 1970-71 school year.

At the beginning of the 1970-71 school year, ninety-eight counties were included within the merged areas served by area schools. During the 1970-71 school year the last county to remain outside of the statewide system of area schools, Cherokee County, voluntarily merged with area schools. Two of the secondary school districts in Cherokee County merged with Northwest Iowa Vocational School and three secondary school districts merged with Western Iowa Tech.

The state governing board responsible for area schools as well as the public elementary and secondary schools in Iowa is the State Board of Public Instruction. This board has the responsibility for providing leadership to area schools and supervising the regulation of these institutions. The State Board in conjunction with the State Board of Regents also has the responsibility for developing standards for area schools. The State Board is advised on the operation of area schools by a nine member State Advisory Committee on Area Schools established by statute and approved by the Governor.

The fifteen area schools operate programs not only on the major campuses but throughout the merged areas at off-campus sites and frequently in conjunction with other agencies such as local public secondary school districts.

Eight of the area schools are multi-campus institutions which operate two or more major campuses. These institutions are considered a single institution for most purposes although the local operation of each institutions may vary considerably. For example, some area schools provide for a high degree of local autonomy in the operation of individual campuses (particularly those area schools where campuses are located considerable distance from each other) while other area schools operate with a more centralized administrative organization. There are a total of twenty-five major campuses operated by the area schools. Refer to Chart 1.

The chapter of the state statutes which includes the basic act authorizing the development of area schools is Chapter 280A, Code of Iowa. Chapter 286A, Code of Iowa, is the chapter which provides the procedure for payment of state general aid to area schools.

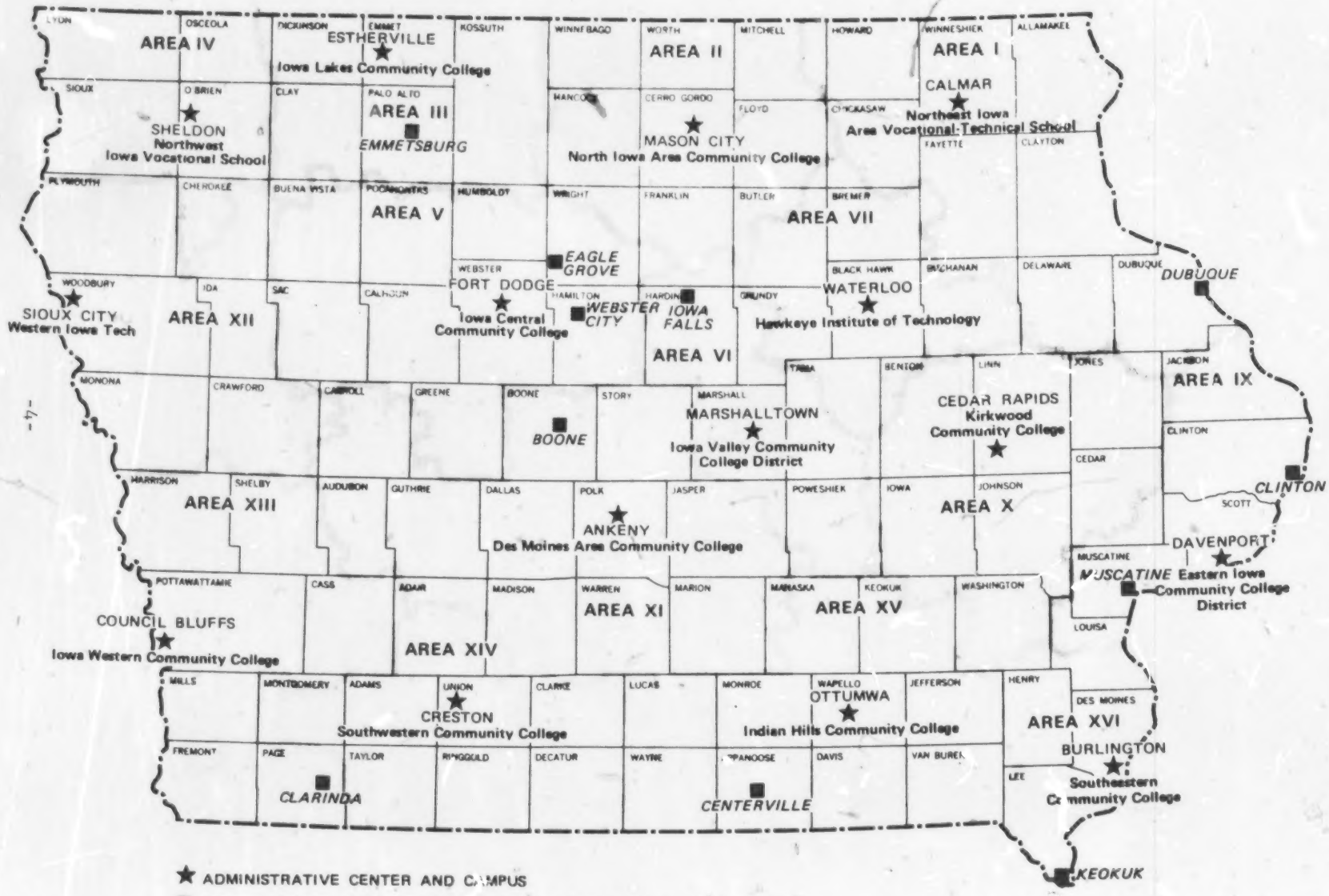
AREA SCHOOLS

Area	Name	Location
I	Northeast Iowa Area Vocational-Technical School	Calmar
II	North Iowa Area Community College	Mason City
III	Iowa Lakes Community College	Estherville
	North Campus	Estherville
	South Campus	Emmetsburg
IV	Northwest Iowa Vocational School	Sheldon
V	Iowa Central Community College	Fort Dodge
	Eagle Grove Center	Eagle Grove
	Fort Dodge Center	Fort Dodge
	Webster City Center	Webster City

Area	Name	Location
VI	Iowa Valley Community College District	Marshalltown
	Ellsworth Community College	Iowa Falls
	Marshalltown Community College	Marshalltown
VII	Hawkeye Institute of Technology	Waterloo
IX	Eastern Iowa Community College District	Davenport
	Clinton Community College	Clinton
	Muscatine Community College	Muscatine
	Scott Community College	Davenport
X	Kirkwood Community College	Cedar Rapids
XI	Des Moines Area Community College	Ankeny
	Ankeny Campus	Ankeny
	Boone Campus	Boone
XII	Western Iowa Tech	Sioux City
XIII	Iowa Western Community College	Co. Bluffs
	Clarinda Campus	Clarinda
	Council Bluffs Campus	Co. Bluffs
XIV	Southwestern Community College	Creston
XV	Indian Hills Community College	Ottumwa
	Centerville Campus	Centerville
	Iowa Tech Campus	Ottumwa
XVI	Southeastern Community College	Burlington
	North Campus	Burlington
	South Campus	Keokuk

CHART I

MERGED AREA SCHOOLS



ENROLLMENT GROWTH

The area schools have made a most satisfactory growth in enrollment over the past seven reporting periods. Initially, the sixteen junior colleges, prior to being corporated into the area schools, had a fall term enrollment in 1965 of 9,110 students. This has increased to 23,590 students for the fall term of 1972.

TABLE 1
FALL TERM ENROLLMENTS*

	Career Educ.		College Parallel				
Fall Term	FT	PT	FT	PT	Total Full-Time	Total Part-Time	Total
Junior Colleges							
1965	825	14	7,521	750	8,346	764	9,110
Area Schools							
1966	2,281	138	9,331	669	11,612	807	12,419
1967	3,979	394	9,688	1,350	13,667	1,744	15,411
1968	5,798	137	9,575	1,396	15,373	1,533	16,906
1969	6,890	171	9,941	1,425	16,831	1,596	18,427
1970	8,375	257	9,833	2,132	18,220	2,389	20,609
1971	8,927	207	9,320	2,294	18,309	2,535	20,844
1972	11,511	522	8,184	3,045	19,984	3,606	23,590

* Excludes adult education

Table 1 clearly indicates the change in enrollment pattern for the area schools. The decline in a full-time college parallel enrollment and a substantial growth in career education is following nationwide trends. It is interesting to note that there is an increase in the part-time college parallel students.

Table 2 details the full-time equivalent enrollment for the same academic years. This is only for students who are eligible for state aid reimbursement. The formula for computing FTEE is defined at the bottom of the table.

TABLE II

FULL-TIME EQUIVALENT ENROLLMENT (FTEE) OF AREA SCHOOLS
STUDENTS ELIGIBLE FOR STATE GENERAL AID

Fiscal Year	Adult Education	Career Education	College Parallel	Totals
1967 (Actual)	669.53	2,150.43	7,345.29	10,165.25[1]
1968 (Actual)	2,431.22	4,720.53	9,264.58	16,416.33[1]
1969 (Actual)	3,262.68	7,259.33	9,236.28	19,758.29[1]
1970 (Actual)	4,566.85	7,425.50	9,612.87	21,605.22[1]
1971 (Actual)	5,814.93	9,107.85	10,453.70	25,376.48[1]
1972 (Actual)	6,077.55	10,041.39	9,776.79	29,895.73[2]
1973 (Projected)	6,349.00	15,823.00	11,204.00	33,376.00[2]

[1] One full-time equivalent enrollment (FTEE) is equal to either: (1) one student carrying twelve or more semester hours of work for 180 days; or (2) a total of 432 equivalent contact hours of two or more part-time students.

[2] One full-time equivalent enrollment (FTEE) is equal to 540 reimbursable hours. A change in the computation of FTEE became effective on July 1, 1971. A reimbursable hour is equal to: a) One contact hour of lecture in an approved course in arts and science or vocational-technical education. b) Two contact hours of laboratory in an approved course in arts and science or vocational-technical education. c) Two contact hours in an approved course of adult education that is eligible for general state aid, except that basic adult education, high school completion, and college credit courses that qualify as lecture courses will be reimbursed on a one contact hour basis.

The formula for computing FTEE was changed July 1, 1971, and was established as outlined below:

> One full-time equivalent enrollment (FTEE) is equal to 540 reimbursable hours. A reimbursable hour is equal to: a) One contact hour of lecture in an approved course in arts and science or vocational-technical education, b) Two contact hours of laboratory in an approved course in arts and science or vocational-technical education, c) Two contact hours in an approved course of adult education that is eligible for general state aid, except that basic adult education, high school completion, and college credit courses that qualify as lecture courses will be reimbursed on a one contact hour basis.

This formula in computing FTEE benefits the college parallel student slightly, and significantly increases the career education FTEE because the formula is based on three quarters or two semesters and most career students are in four quarter programs. The adult education FTEE has been restricted based on the number of laboratory courses which require computation of two contact hours being converted to one reimbursable hour.

Table 3 indicates the total FTEE that was accounted for in the fifteen area schools. This includes reimbursable students for state aid and non-reimbursable students. The non-reimbursable students would include out-of-state students, students who would be in fully-funded federal programs, such as the Manpower Development Training Act (MDTA), and adult avocational courses.

TABLE III

TOTAL FULL-TIME EQUIVALENT ENROLLMENT (FTEE) OF AREA SCHOOLS BY FISCAL YEAR
(includes students not eligible for state general aid)

Merged Area	TOTALS - ALL DIVISIONS						
	1967	1968	1969	1970	1971	1972	1973*
I - Calmar	18.97	213.36	435.55	650.17	797.15	1384.15	1500.79
II - Mason City	1699.47	1795.04	1769.45	1872.14	1896.05	1871.77	1896.90
III - Estherville	-	698.99	949.82	1053.09	1275.98	1587.02	1686.12
IV - Sheldon	166.67	236.82	379.14	442.14	646.56	877.39	862.40
V - Fort Dodge	1562.72	1689.45	1857.52	2236.80	2452.15	2686.26	2719.89
VI - Marshalltown	2087.40	2141.99	2196.38	2315.51	2410.89	2314.90	2209.67
VII - Waterloo	650.87	1105.26	1133.04	1371.71	1634.22	2112.96	2171.49
IX - Davenport	1439.00	1620.85	1698.89	1764.72	1868.61	2299.55	2616.08
X - Cedar Rapids	491.20	1897.56	2723.27	3275.08	4082.61	4350.35	4620.93
XI - Ankeny	401.89	1366.72	2530.45	2966.83	3954.95	5248.12	5369.10
XII - Sioux City	95.00	475.47	786.39	1127.35	1254.55	1495.91	1795.38
XIII - Council Bluffs	582.24	972.35	1128.51	1438.70	1524.12	1972.50	2089.67
XIV - Creston	311.30	547.70	501.92	559.81	675.76	682.96	719.45
XV - Ottumwa	299.00	1712.00	1801.54	1486.74	1976.51	1995.91	2322.61
XVI - Burlington	1328.50	1470.69	1551.96	1607.08	1735.57	1673.77	1665.17
TOTALS	11134.23	17944.25	21443.83	24167.87	28185.68	32553.52	34245.65

* All fiscal year 1973 FTEE are unaudited figures.

DEVELOPMENT OF FINANCIAL ACCOUNTING SYSTEM

The 63rd Iowa General Assembly mandated in Chapter 280A.25, Subsection 10, Code of Iowa that the State Board of Public Instruction "prescribe a uniform system of accounting for area schools". A nine member advisory committee was appointed in October, 1967 by the State Board of Public Instruction to develop a financial accounting manual.

This committee has one representative from a private four-year institution, one representative from the Certified Public Accountants Association, one representative from the State Auditor's Office, two representatives from the Area School Superintendent's Association, three representatives from the area school business managers and one representative from the State Department of Public Instruction, Area Schools Division.

The Advisory Committee submitted to the State Board a final copy of the financial accounting manual with the recommendation that the area schools implement the chart of accounts July 1, 1969 and all schools be on accrual accounting for fiscal year 1971. The State Board of Public Instruction approved the manual and recommendations on March 21, 1969.

The accounting manual establishes nine funds of which the area schools must use a minimum of five; general fund, auxiliary-agency fund, scholarship and endowment fund, loan fund and plant fund.

EXPENDITURES AND REVENUE SOURCES

Following uniform accounting procedures the area schools general fund expenditures have shown the following growth pattern.

TABLE 4
AREA SCHOOLS GENERAL FUND EXPENDITURES

Fiscal Year	Dollar Amount
1967	$ 6,609,823
1968	20,172,391
1969	25,436,135
1970	31,358,404
1971	36,034,495
1972	40,674,524
1973 Proposed	47,987,000

The average percent of increase in expenditures for fiscal years 1968-72 has been 19.27. Chart II graphically shows the growth in expenditures.

To finance the growth as outlined in Table 4, the area schools have basically four sources of income; tuition and fees, local three-fourths mill property tax, state general aid and state and federal vocational aid. Table 5 indicates the amount of state general aid appropriations the area schools received on an accrual basis.

TABLE 5
STATE GENERAL AID APPROPRIATIONS
FOR AREA SCHOOLS

Fiscal Year	Dollar Amount
1967	$ 4,500,000
1968	6,000,000
1969	6,000,000
1970	9,000,000
1971	10,400,000
1972	12,170,000
1973	13,800,000

These appropriations 1967-69, 1970-71 and 1972-73 were based on different funding formulas. The funding formulas are explained in detail in Chapter Two.

A graphic illustration of the different sources of revenue and their percentages of the total revenue by year appear in Chart III. It should be noted that for the current 1972-73 year and past two years of operation the percent of revenue attributed to tuition and fees, local three-fourths mill levy and state and federal vocational aid is decreasing while state general aid has increased. This trend will become more prevalent in the next biennium.

AREA SCHOOLS ACTUAL AND PROPOSED EXPENDITURES
Fiscal Years 1967 Through 1973
General Fund

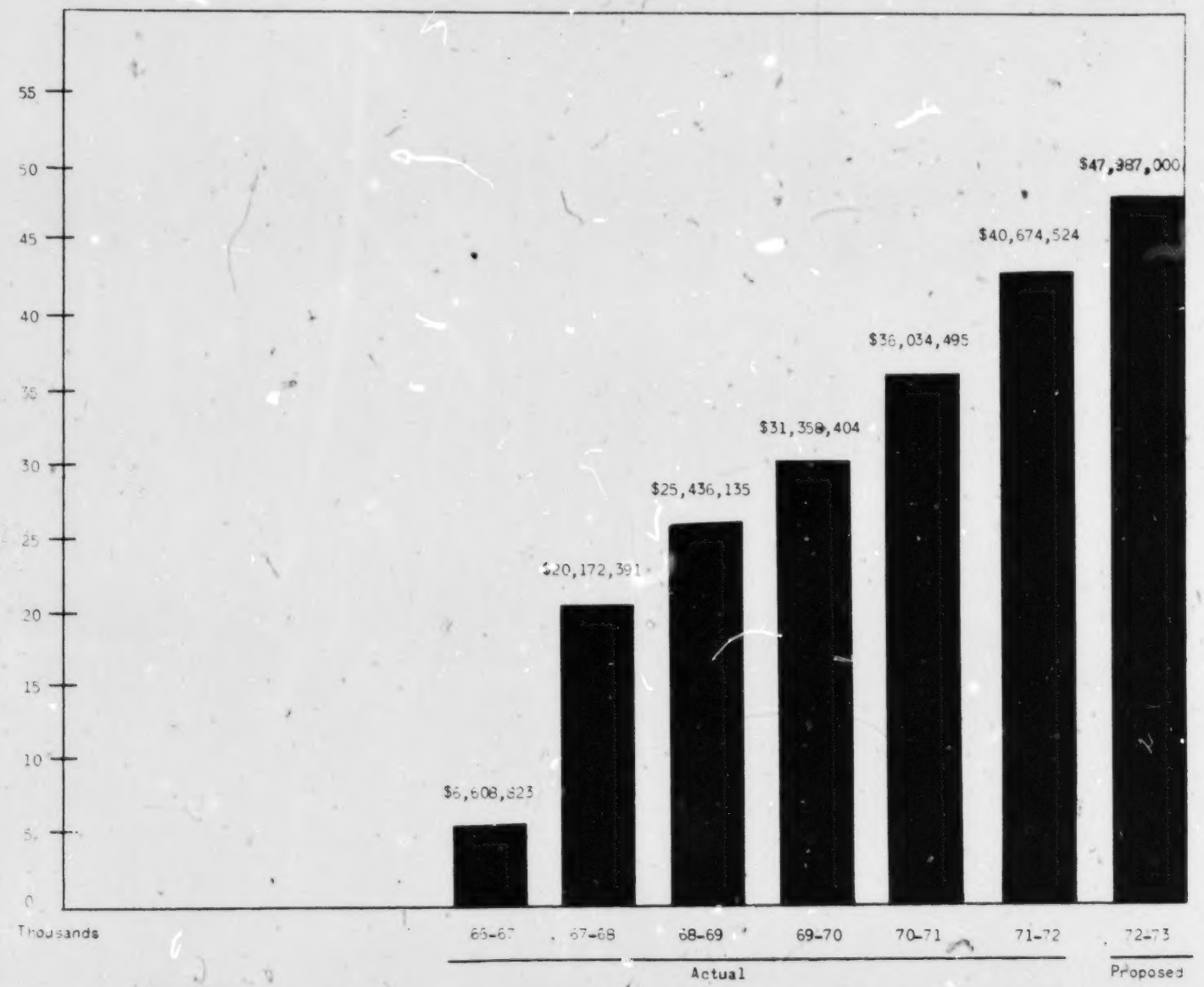
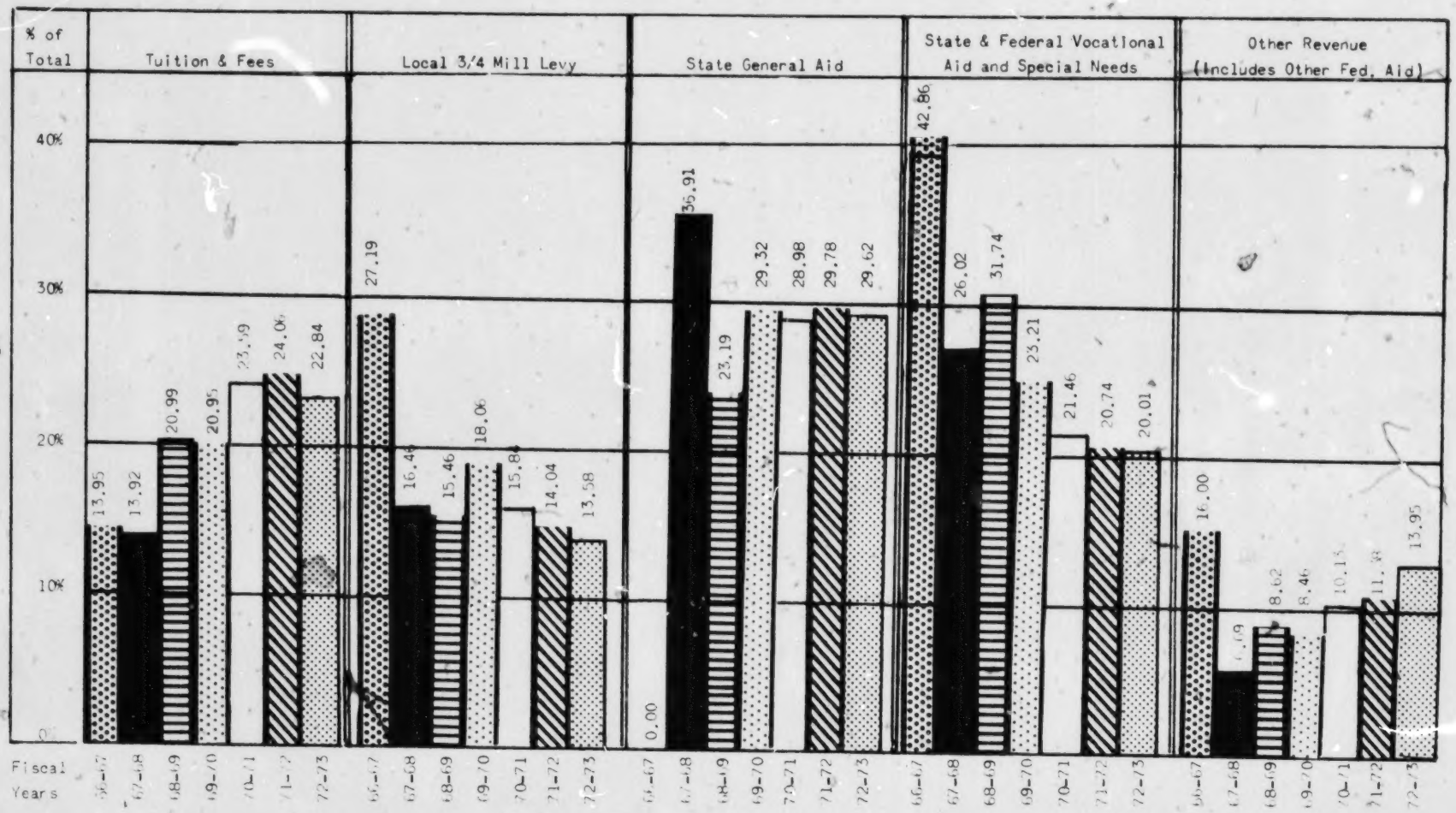


CHART III

AREA SCHOOLS
COMPARISON OF GENERAL FUND REVENUE SOURCES*
Fiscal Years 1967-73

(Including Estimate for Fiscal Year 1973)



* Use of unrestricted funds not included.

CHAPTER II

GENERAL AID FUNDING FORMULAS

As previously mentioned, the area schools have been in operation since July 1, 1966. They have requested state general aid for four and one-half biennium and to date have actually received aid for three and one-half biennium. Three different funding formulas and one funding model have been used to determine the amount of general state aid each area school was to receive. The different funding formulas are explained in the following paragraphs.

1966-69 Funding Formula

Chapter 286A, Code of Iowa set forth the reimbursement procedures for junior colleges and merged area schools for the 1966-69 years.

The junior colleges were reimbursed at the rate of $1.00 per day times ADE of resident students and $2.25 per day times ADE of non-resident students times the number of days in session, not to exceed 180 days. A full-time student was a student who carried twelve or more semester hours.

The merged area schools were reimbursed at the rate of $2.25 per day times ADE of resident students times the number of days in session up to 180 days. Here also, a full-time student was one who carried twelve or more semester hours. Full-time equivalents were computed for part-time students in both the junior colleges and area schools.

Reimbursement was made on a quarterly basis with an adjustment in the fourth quarter based on actual FTE served.

Guidelines for reimbursement and the requests for appropriations to the state legislature were based on estimated FTEE to be served.

The appropriation of $4,500,000 for the 1966-67 school year was paid to each junior college or area school based on its full-time equivalent enrollment on May 1, 1967 times the number of days of operation. Since the appropriation was not adequate for full reimbursement at $2.25 per day, it was pro-rated at 85.068 percent.

The appropriation requests and reimbursement for 1967-68 and 1968-69 were based on Chapter 286A. State general aid appropriations for each year of the biennium were established at $6,000,000. Therefore, when reimbursement of state general aid was made it was pro-rated at 89.5639 percent or $2.01517 per day for 1967-68 and 74.52262 percent or $1.6767 per day for 1968-69.

1969-71 Funding Formula

Since the three previous years did not provide full state general aid funding, the major concern for 1969-70 and 1970-71 years was to provide the full funding of $2.25 per day per FTEE. An effort was made to provide for growth in FTEE for all area schools as well as provide an additional growth factor for eight area schools which were still identified as developing institutions.

The appropriation request was based on full reimbursement of a projected growth of FTEE in existing programs and initiation of new vocational programs. The appropriation recommended by the governor to the legislature (which was approved) was considerably less than the initial request. In an effort to maintain the full reimbursement of $2.25 per day per FTEE and provide for growth in both the first and second year a new funding formula was initiated. In summary the following procedures were followed:

1. The governor's recommendation of $9.7 million each year was changed to $9 million on the first year and $10.4 million the second year. This provided the flexibility to grow the second year. Projected full reimbursement per FTEE ($405.00) established the maximum of FTEE that could be reimbursed each year.

2. A base FTEE figure and allocation was established for each area school.

3. This left a limited number of FTEE to be allocated to all schools. This was done in the following manner:

    a. Eight schools were identified as developing institutions based on the percentage of population not being served. These schools were allowed a 5% growth factor based on their FY 69 FTEE.

    b. The remaining FTEE was allocated to all fifteen schools based on their percent of total state population.

Under this funding formula each area school was guaranteed an allocation of FTEE at full reimbursement. The appropriation bill was written as a line-item allocation to each area school thereby eliminating any opportunity to adjust the reimbursement to actual FTEE served.

1971-73 Funding Formula

The general aid appropriation for area schools was recommended on a line-item basis for each of the fifteen schools in a manner similar to that followed by the 64th General Assembly in 1969 when House

File 825 was enacted to provide $9,000,000 for 1969-70 and $10,400,000 for 1970-71.

This appropriation provided $12,170,000 for 1971-72 and $13,800,000 for 1972-73 divided on a line-item basis for each area school.

The line-item amounts were determined in 1969 on the basis of projected enrollments only.

The line-item amounts in this bill were based on the latest available actual enrollment figures coupled with a direct comparison of actual enrollment in the fall quarter of 1969 and the fall quarter of 1970. This comparison provided a direct correlation of actual enrollment with anticipated enrollment in the next two years.

The formula used in determining these line-item amounts was developed over a period of many months by the Iowa Council of Area School Boards, Area School Superintendents, and the Department of Public Instruction - Area Schools Division. All fifteen area school boards had approved the formula which was used and the line-item amounts contained in this bill.

The formula was developed from information supplied by each area school to the Department of Public Instruction regarding projected costs of continuing present programs and establishing needed new programs to provide skill training to meet the needs of people and business and industry in each merged area school. The $34,000,000 in general aid would have been required to meet these needs.

When it became necessary to adjust the $34,000,000 need to fit the funds available, the formula was used to reduce the line-item amounts for each area school in a fair and equitable manner.

Adjusting a $34,000,000 need to fit the $25,970,000 of available funds as provided in the Governor's budget and the Camp-Messerly budget required the elimination of most new programs, the curtailment of some present programs, and continued improvement in the economy and efficiency of operation in each area school.

The line-item amounts were determined by the following method:

1. A base was established for each school equal to the 1970-71 line-item amount. (Some schools were given an adjusted base increase because they exceeded the projected enrollment during the 1969-70 year.) This required $10,742,022 to provide the base and make adjustments.

2. The formula developed for the distribution of $34,000,000 provided percentage figures for each area school. These

percentages were applied to the difference obtained by subtracting $10,742,022 from $12,170,000 for the first year of the biennium and adding these amounts to the base (of the adjusted base) for each school. A similar procedure was followed to determine the line-item amounts for the second year of the biennium.

The formula involves:

1. A base.

2. Comparison of property valuation behind each student and adjustment for area schools below the average.

3. Comparison of tuition charged and adjustment for area schools below the average.

4. Comparison of enrollment (fall quarter of 1969 and fall quarter of 1970).

5. Comparison of percentage of population being served.

Use of the five factor formula provides more equity in the distribution of the available funds than would be possible by using only one factor of projected enrollment.

TABLE 6
FORMULA FOR DETERMINING LINE-ITEM AMOUNTS FOR EACH AREA SCHOOL

A =	Adjusted base	D =	Difference between adjusted base and amount appropriated
X =	Amount appropriated	AD_1 =	Adjusted amount above base for 1972
F_1 =	Percent factor for 1972	AD_2 =	Adjusted amount above base for 1973
F_2 =	Percent factor for 1973		

Fiscal Year 1972	Fiscal Year 1973
$X - A = D$	$X - A = D$
$D \times F_1 = AD_1$	$D \times F_2 = AD_2$
$A + AD_1$ = Line Item 1972	$A + AD_2$ = Line Item 1973

1973-75 Funding Model

In preparing area school appropriation requests for the 1973-75 biennium, a committee representing the state agency, the area school superintendents and Iowa Council of Area School Boards developed a funding model. This provided support to maintain the ongoing general fund operation and replace instructional equipment. Separate appropriation requests were developed for support of career education programs and expansion of career services for new programs or additional sections.

The base starting point in the development of the biennial request for maintaining ongoing operations was each area schools 1972-73 budget. Realizing that there were increased expenditures based on increases in cost of living, materials, supplies, utilities and wage price controls, each area school was allowed to increase its expenditures for all of the educational functions (college parallel, career education and adult education) except the fully funded federal programs by 6% for the 73-74 year and 74-75 year. The indirect support costs were prorated to the four educational functions prior to the application of the 6% increase in expenditures.

It was also recognized that there was a need for replacing instructional equipment to help maintain the ongoing programs. Since the area schools are maintaining inventory listings and are using depreciation schedules it was suggested an appropriation for equipment replacement be based on the depreciation factor. A very conservative figure of 4½% of the inventory listing was used. The replacement of instructional equipment has been neglected in recent years due to limitations of revenue.

After the proposed expenditures had been determined, each area school projected what its revenue sources would be for each year of the biennium. The four major sources of revenue are tuition, 3/4 mill property tax levy, state general and vocational aid and federal funds. The determination of revenue from tuition was based on an effort to establish over the biennium a uniform tuition charge of $400 for two semesters or three quarters. Several schools will raising their tuition over the next two years to arrive at this uniform charge. One institution with tuition higher than the average tuition would be lowering its tuition charge. The property tax levy is limited to a maximum of 3/4 mill by law. The 3/4 mill increases only slightly from year to year.

Each area school was asked to project its state vocational aid at the same level as the 72-73 year. Federal aid was also to be projected at the same level as 72-73. There is a strong possibility that the federal dollars in the future will be less.

Each area school summarized its revenue sources excluding general aid and compared this to expenditures. The difference between the two is a general aid asking for each year of the biennium. The area schools do not have any flexibility in revenue sources except in the area of tuition. Therefore, it becomes apparent that if the area schools did not receive its state general aid appropriation in the manner that was requested, it will be necessary to either reduce expenditures or raise tuition.

The appropriation for the new or expanded career programs will be appropriated to the Department of Public Instruction for allocation to the schools based on need of new programs in either area.

SUMMARIZATION OF FUNDING FORMULAS OR MODELS

A transition in funding for state general aid has taken place since 1967. Initially, the state general aid appropriation was estimated on projected FTEE and reimbursed on actual. In the next biennium the total appropriation was made up of line-item allocation for each school. A formula utilizing fall enrollment, school census and estimated population determined the amount of the line-item allocation to each of the area schools.

The line-item allocation incorporated a base allocation plus adjustments for 3/4 mill property tax, tuition, actual enrollment increase and percent of population being served. A funding model to establish the appropriation for 73-75 biennium was developed on a total budget concept with an attempt to equalize tuition and 3/4 mill tax levy and apply all sources of revenue except general aid against the expenditures. This makes state general aid the adjusting factor for each school. Incorporated into the process is a provision to replace instructional equipment which has not been supported by state and federal vocational funds since FY 1969. Again the appropriation is made up of individual school line-item allocations.

CHAPTER III

PROPOSED FUNDING MODEL

The previous chapter has outlined a transition in state funding procedures for the area schools of Iowa. Probably the most significant changes have been in an effort to equalize the local three-fourths mill property tax levy and have uniform tuition charges.

In looking toward a modification of the present funding model or the development of a new model, it is wise to look at other studies that have been completed or funding models that have been initiated.

Dr. Clement H. Lausberg, U. S. Office of Education, prepared a publication[1] for the Center For State and Regional Leadership (Florida State University, University of Florida) with the help of a grant from the W. K. Kellogg Foundation. The data for this publication was completed by Dr. Lausberg as a part of his doctorial study.

Dr. Lausberg states that the six basic objectives of a state community college funding model are:

Objective 1 - State Recognition of a Post-Secondary Education Responsibility

States should develop a master plan which provides for community colleges or equivalent post-secondary educational institutions within commuting distance of all state residents. Such plans should guarantee admission to all post-secondary students and provide alternative educational offerings, including college transfer, occupational, developmental, and community based instruction courses for the residents it serves.

A principal responsibility for maintaining adequate support for the state master plan rests with the state legislature. It must statutorily enact the state funding statute and appropriate the funds for community colleges operations on a continuing basis.

Objective 2 - Equalization of Support Among Districts

The funding model proposed in this study proposes a state support system or a fully equalized state-local partnership. This position is based on the theory that, with the exception of income from gifts and

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1 Lausberg, Clement H., A Funding Model for Community College Operating Costs, (Tallahassee, Florida State University, 1972).

and auxiliary enterprises, all educational funding sources should be included under equalized state funding formulas. No where within a state should the quantity of educational support be dependent on the tax paying ability of the community college district.

Objective 3 - Equalization of Financial Support Among Disciplines

Funding formulas which do not adequately recognize cost differentials deter community colleges from fulfilling their mission as comprehensive post-secondary institutions. Many education experiences most needed by the community, including occupational and technical offerings, special adult programs, and remedial courses for the economically disadvantaged, cost more than the regular academic disciplines.

Regardless of whether a state provides funding for high cost education, without a cost of living adjustment, the cost differential loses meaning.

Objective 4 - Equalization of Financial Support Among Students

Although leaders in the community college movement have long advocated the free tuition principle, student charges have been levied in every state with a community college system. Even states legally prohibiting tuition such as California, Nevada, and Missouri collect registration fees and other charges from students.

The funding model proposed in this study provides for a uniform student fee schedule.

Objective 5 - Local Control and Initiative

Local control of community colleges is advocated under the proposed funding model. The model calls for the allocation of specific amounts per full-time student, with the elimination of all earmarking and categorical restrictions. Colleges should not be forced to relate salary schedules to the rank and contractual status of instructors as determined in the state capitol, not be required to spend minimum amounts for expenses or administrative services. Under the model, community colleges are free to spend their dollars as they determine, receiving a lump sum allocation for the entire college. It is intended that local institutions will experiment with alternative learning strategies and adopt efficiencies within a college-wide budget, thus utilizing opportunities for creative academic leadership.

Objective 6 - National Incentive Grants

In our increasingly mobile society, the residents of one state have a stake in the quality of education provided in each other state.[2]

National incentive grants are proposed in the funding model to assist state community college systems to further expand in the future.

The basic funding formula recommended by Dr. Lausberg is:

The funding model focuses on state allocations for operating costs to community colleges. State costs are derived from total costs figures with adjustments for cost of living, carryover fund balances, federal funds, and student fees. With the exception of income from gifts and auxiliary enterprises, all funds are included in the algebraic formula: $A + B = T + G + J - (C+D+DG)$ where:

A = sum of state allocations divided by statewide FTE, or state allocation per FTE.

B = sum of local allocations divided by statewide FTE, or local allocation per FTE.

T = sum of statewide total expenditures divided by total FTE, or total cost per FTE.

G = cost of living adjustment for average loss in purchasing power from base year to funding year.

J = allowance for carryover fund balances.

C = federal funds for instruction divided by total FTE, or federal funds per FTE.

D = uniform fee deduction per FTE.

DG = cost of living adjustment for student fees per FTE.

The Florida State Department of Education under the direction of Floyd T. Christian, Commissioner of Education and Lee G. Henderson, Director, Division of Community Colleges contracted with Associated Consultants in Education (ACE) to develop a system for the analysis of operating expenditures of Florida community colleges.

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[2] Advisory Commission on Intergovernmental Relations, Staff Memorandum, May 19, 1972.

The next logical step after cost analysis by course and discipline was to develop a funding model. A funding model incorporating cost analysis was developed in compliance with Florida statutes and became operational the 1973-74 school year.

The Florida community college funding model[3] identifies the state share of support for operating costs by:

A. Isolating state share of total operating costs from total available sources (federal, student, state).

B. Recognizing cost differences between courses and disciplines in transfer, occupational and vocational.

C. Considering cost differences by size grouping of institutions.

In light of the recommendations by Dr. Lausberg for a state funding model and the new funding formula adopted by the Florida State Department of Education, it would appear that these guidelines might be used as a general format for establishing a funding formula for Iowa.

The criteria to be used for the funding formula would be:

I. Establish statewide average total (direct and indirect) program costs per student contact hour. This would be identified by educational function (college parallel, career education, adult education and activities related) and program taxonomy where possible.

II. Establish cost index factor by educational function and taxonomy.

III. Establish new state average support for program reimbursement by taking state average cost per contact hour and

    a. Add economics lag factor.

    b. Add adjustment for equipment replacement.

    c. Subtract all other revenue support (tuition, fees, local 3/4 mill tax levy, federal support and other income).

IV. Establish new state support need in total by:

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[3] The Community College Program Funding Process (Formula), page 2.

a. Applying cost index to new state need by program.

b. Times the total number of projected contact hours by school to determine each schools need.

c. Takes sum of 15 area schools to arrive at total.

V. Quarterly reimbursements will be made with final adjustments based on actual contact hours earned. Adjustments in final reimbursement could be made in first quarterly payment of the following year.

Charts IV through VII graphically outline the criteria (1-5) that would be used to establish a funding formula.

The next phase will be to take the proposed budget data and the end of year actual data for the area schools 1972-73 school year and input this into the proposed funding formula.

A simulated system will be run to estimate the state general aid need by area school and in total for the state, then determine what the actual reimbursement of state general aid might be if the formula were used. An analysis of the data would then be made between what the formula would propose and what the schools actually received during the 1972-73 year.

This information would then be submitted to appropriate committees for their review and action.

CHART IV

Programs by 10-Digit Fed. Tax.
Programs by 2-Digit Federal Taxonomy
Distributive
Agriculture
Office
Technical
Health
T & I
Other
ABE
Continuing
Supplementary
HS Completion
Other
Contact Hours - Program Costs (A & S)
Contact Hours - Program Costs (Voc-tech)
Contact Hours - Program Costs (Adult)
Statewide Average Contact Hour Cost

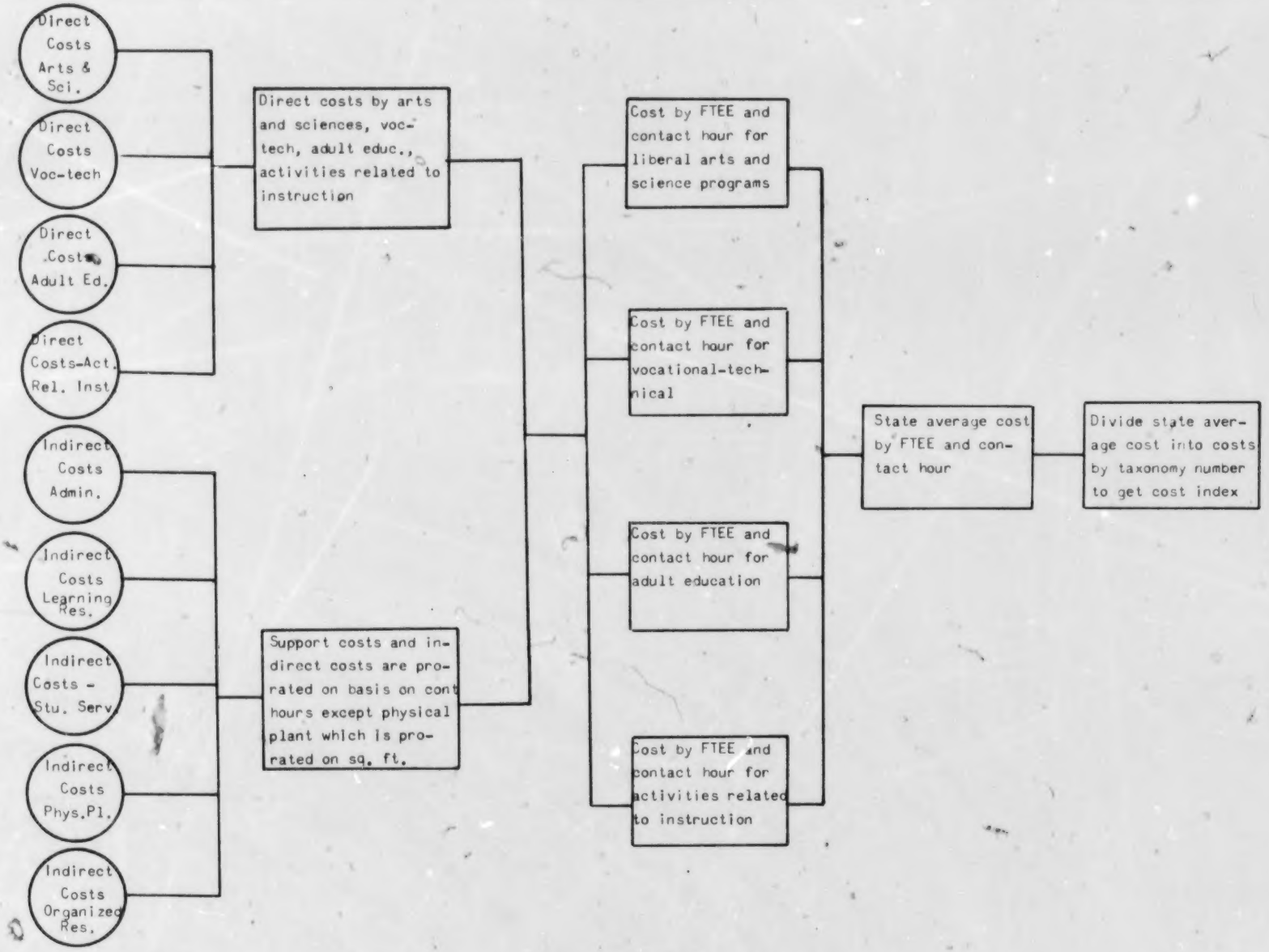

Direct Costs Arts & Sci.
Direct Costs Voc-tech
Direct Costs Adult Ed.
Direct Costs-Act. Rel. Inst.
Indirect Costs Admin.
Indirect Costs Learning Res.
Indirect Costs - Stu. Serv.
Indirect Costs Phys.Pl.
Indirect Costs Organized Res.
Direct costs by arts and sciences, voc-tech, adult educ., activities related to instruction
Support costs and indirect costs are prorated on basis on cont hours except physical plant which is prorated on sq. ft.
Cost by FTEE and contact hour for liberal arts and science programs
Cost by FTEE and contact hour for vocational-technical
Cost by FTEE and contact hour for adult education
Cost by FTEE and contact hour for activities related to instruction
State average cost by FTEE and contact hour
Divide state average cost into costs by taxonomy number to get cost index

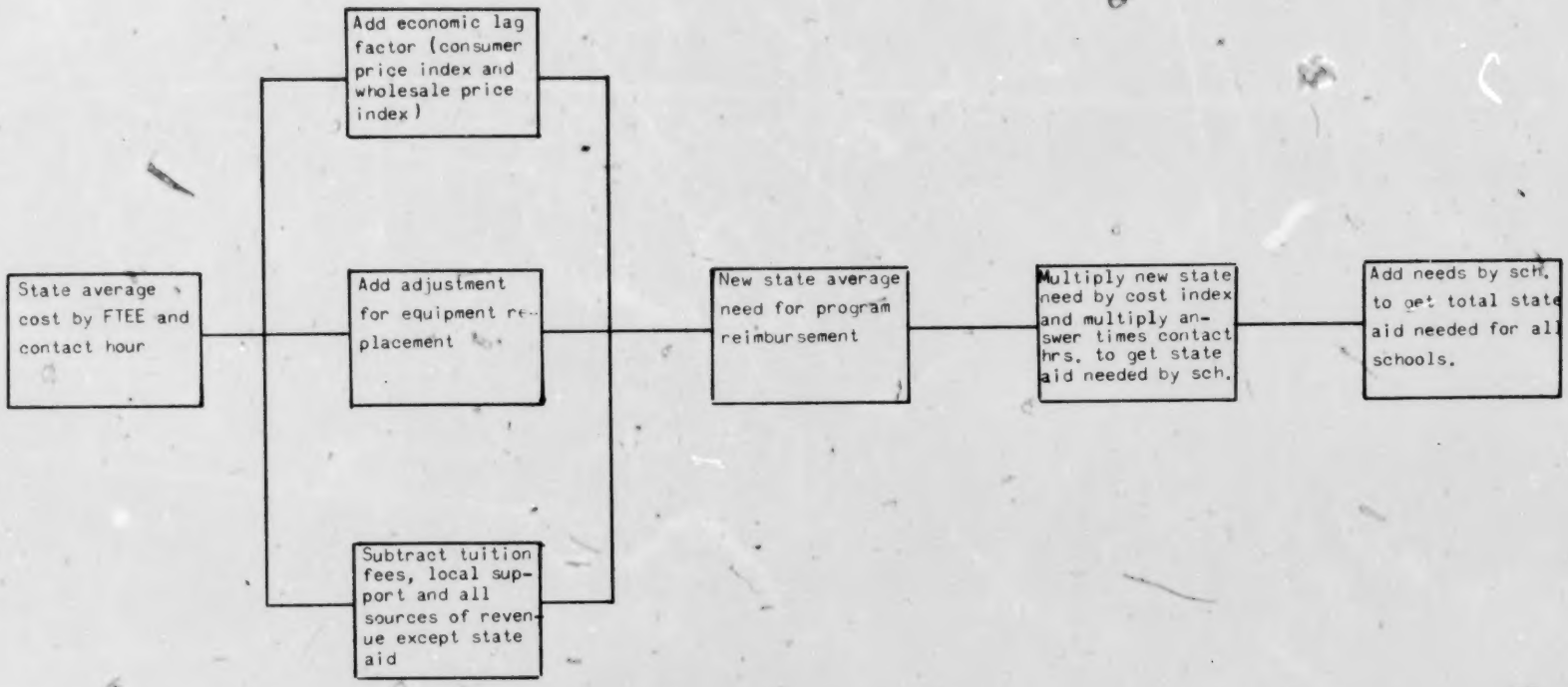
CHART VI

$$\frac{\text{Actual Program Costs (Contact Hour)}}{\text{Statewide Average Program Cost (Contact Hour)}} = \text{Cost Index}$$

Example:

Computer Programmer	$3.61	=	2.0
Statewide Average Program	$1.80		

CHART VII


Add economic lag factor (consumer price index and wholesale price index)
State average cost by FTEE and contact hour
Add adjustment for equipment replacement
New state average need for program reimbursement
Multiply new state need by cost index and multiply answer times contact hrs. to get state aid needed by sch.
Add needs by sch. to get total state aid needed for all schools.
Subtract tuition fees, local support and all sources of revenue except state aid

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